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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,645	03/07/2001	Troy Michael Runge	16,670	5221

23556 7590 08/02/2006

KIMBERLY-CLARK WORLDWIDE, INC.  
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NEENAH, WI 54956

EXAMINER
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HALPERN, MARK

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/800,645

Applicant(s)

RUNGE ET AL.

Examiner

Mark Halpern

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,8-19,22-33 and 77-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-19,22-33,77-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1) In view of the Appeals Brief filed on 5/19/2006, PROSECUTION IS HEREBY REOPENED. Office Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1-2, 4-5, 8-19, 22-23, 25, 27-33, 77-79, are rejected under 35

U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hansen (5,547,541) with or without Saint-Cyr, (Adsorption Kinetics of Dyes and Yellowing Inhibitors on Pulp Fibers, Master of Engineering Thesis, McGill University, Montreal, Canada, June 1999)

Claims 1-2, 4-5, 14, 17-18, 22-23, 25, 27: Hansen discloses sequentially spraying a non-polymeric or polymeric binder and water insoluble superabsorbent onto the surface of a dewatered and dried web as shown in a paper machine in Figure 1 and disclose chemicals listed in columns 19-20. The treated sheet is then fiberized to form absorbent non-woven products. The sprayed additives in Hansen are chemically bound to the fibers by covalent or ionic bonds and are inherently retained in the claimed range between about 10% to about 100% in the sheet when exposed to a liquid, water, and thus anticipate or it would have been obvious, to one skilled in the art at the time the invention was made, show the claimed invention.

The present Specification (Background of the Invention, Pgs. 1-2) discloses adsorption of chemical additives by a web onto web fibers and discloses that the adsorption follows Langmuir kinetics. The Specification also recites that "...the adsorption of water

soluble or water dispersible chemical additives may be significantly less than 100 percent,...". Saint-Cyr performed surface adsorption tests finding that chemical adsorption on the surface of fibers is following Langmuir kinetics. Saint-Cyr further performed desorption tests by taking the web containing chemical additives adsorbed by the web fibers and placing said web in water and concluded that adsorption is irreversible (Saint-Cyr, Section 4.2, pg. 45, Section 4.2, pg. 83). Desorption does not follow Langmuir kinetics. Langmuir kinetics assumes that adsorption is reversible. Desorption is following Donnan equilibrium (Conclusions, pgs. 55-58, pgs. 95-98, pgs. 102-103), desorption being irreversible due to ionic bonding between the chemical additive and fibers.

Claims 8-13, 33: the chemical additives are softening agents (Abstract). Polyhydroxy compounds are disclosed (col. 27, lines 35-50). Absorbency agents are disclosed (col. 42, lines 14-20). Strength agents are disclosed (col. 42, lines 46-52).

Claims 15, 29-32, 77-79: the amount of chemical additive is disclosed in the Examples.

Claims 16-17: dried fiber consistency is disclosed between 90 and 92 percent (col. 8, lines 35-45).

Claim 19; tissue forming is disclosed (col. 35, lines 19-32).

Claim 28: paper product enhanced quality is disclosed (Abstract).

3) Claims 3, 6, 24, 26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen in view of Champaigne (3,556,931). Hansen is applied as above for claims 1, 22, Hansen is silent on a z-direction gradient of the chemical additive.

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Champaign discloses a process of making a cellulosic fluffed sheet, wherein a quaternary ammonium salt is added to the web in such a way as to penetrate only the surface zone of the web and thus create a gradient of chemical additive penetration into the web (Champaign, col. 1, lines 13-27, and col. 1, line 64 to col. 2, line 19). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Hansen and Champaign, because such a combination would create a product of Hansen having a dense absorbent inner zone and a softer more fluid outer zone, as disclosed by Champaign (col. 1, lines 25-27).

#### ***Response to Amendment***

- 4) The Final Office action issued in the previous Office Action is withdrawn.
- 5) The terminal disclaimer filed on 7/28/2005, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of patent resulting from application 10/242,571 has been reviewed and is accepted. The terminal disclaimer has been recorded.
- 6) Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

- 7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Halpern  
Primary Examiner  
Art Unit 1731

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
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